

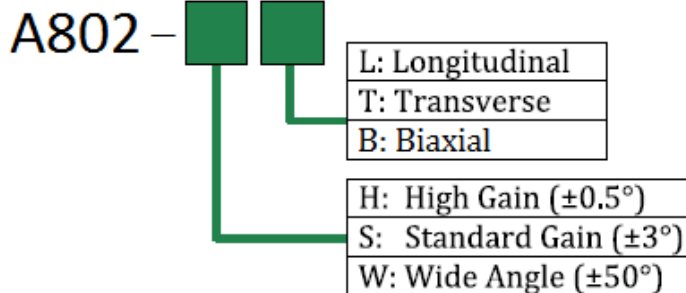
The model A802 Deepwater is a high-precision submersible tiltmeter for use in marine, offshore, and deep ocean applications. Using an absolute gravity referenced electrolytic sensor, the A802 delivers superior measurement accuracy with virtually no long-term drift. High-gain units are sensitive to <0.0017 mm/m or better. Output is a stable ± 5 DC voltage (± 10 VDC differential), which can be read with any VDC input data recorder. All units are rated to +2500m waterproof for advanced protection from the elements. Use the A802 "Deepwater" for structural monitoring, angle measurement and control, platform leveling, and more.



	High-Gain	Standard	Wide-Angle
Angular Range	$\pm 0.5^\circ$	$\pm 3.0^\circ$	$\pm 50^\circ$
Resolution	<0.0001°	0.0006°	0.01°
Repeatability	<0.0002°	0.001°	0.02°
Non-Linearity	1%	<2%	0.5%
Scale Factor	0.1°/V	0.6°/V	10°/V
Time Constant	1.75 sec (2-pole Butterworth low-pass filter)		0.15 sec
Kz Temp Coefficient (deg/C)	± 0.0002 arcsec/°C (typical)		± 0.002 arcsec/°C (typical)
Ks Temp Coefficient (%/°C)	0.02%/°C (typical)		
Output	± 5 VDC (single ended); ± 10 VDC (differential)		
Channels	Tilt, Temperature		
Output Impedance	270 ohms		
Temperature Output	0.1°C/mV typical (single ended; 0°C = 0mV)		
Power	8-18 VDC @ 8mA, 250 mV ripple max, reverse polarity protected		
Environmental	-4 to +60° C operation; -30 to +100° C storage. IP68		
Dimensions	120 x 80 x 60 mm, 5 kg (11 lb.)		
Materials	316 SS (6AL-4V Titanium also available)		
Cable	6-conductors, two-types available: 1) Neoprene, 20 AWG, no shield or 2) PVC-jacketed, polypropylene-insulation, 24 AWG, shielded. Order cable separately.		

Specifications subject to change without notice on account of continued product development

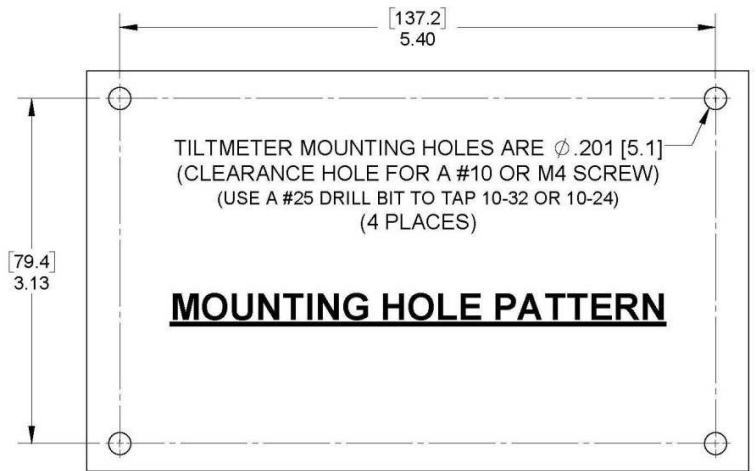
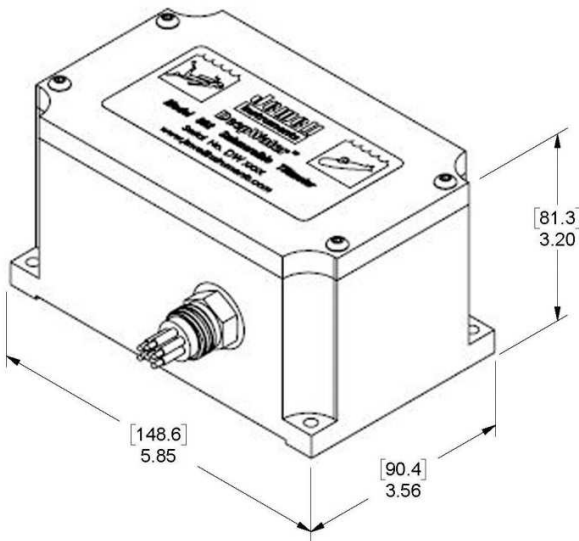
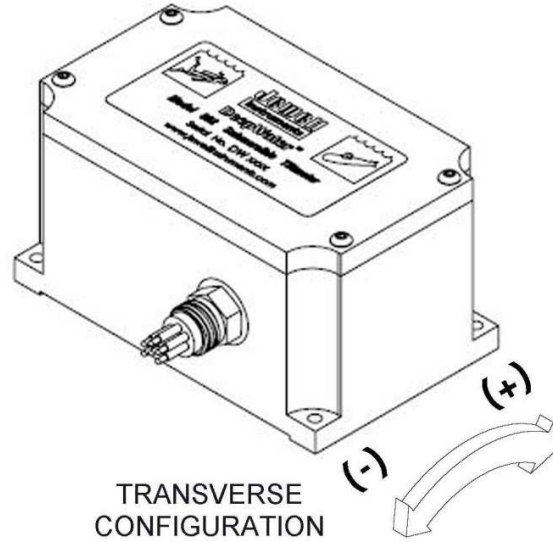
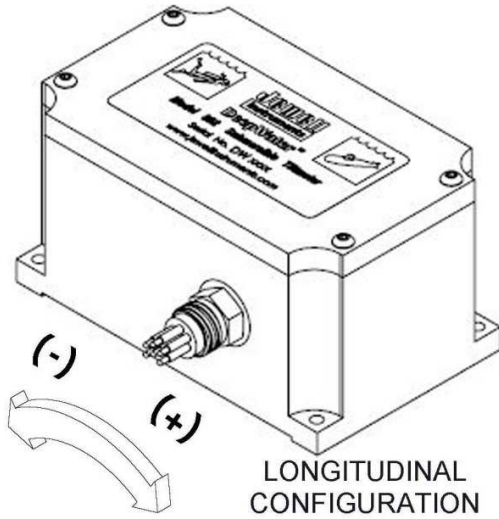
Ordering Code:



Wiring/Pin-out:

Pin	Wire Color	Function
1	Black	Power Ground
2	White	Signal Ground
3	Red	V+
4	Green	+Tilt
5	Yellow	Temperature
6	Blue	-Tilt (differential)

Dimensions & Axis Configurations:



DIMENSIONS ARE IN INCHES [MILLIMETERS]

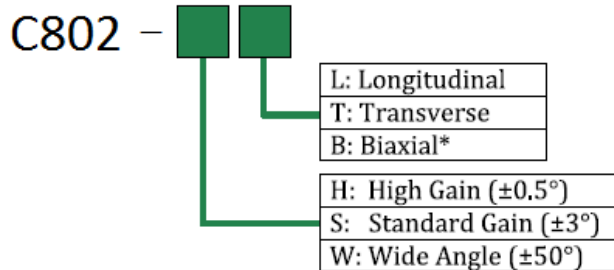
The model C802 Deepwater is a high-precision submersible tiltmeter for use in marine, offshore, and deep ocean applications with 4-20mA output. Using an absolute gravity referenced electrolytic sensor, the C802 delivers superior measurement accuracy with virtually no long-term drift. High-gain units are sensitive to <0.0017 mm/m or better. All units are rated to +2500m waterproof for advanced protection from the elements. Use the D802 "DeepWater" for structural monitoring, angle measurement and control, platform leveling, and more.



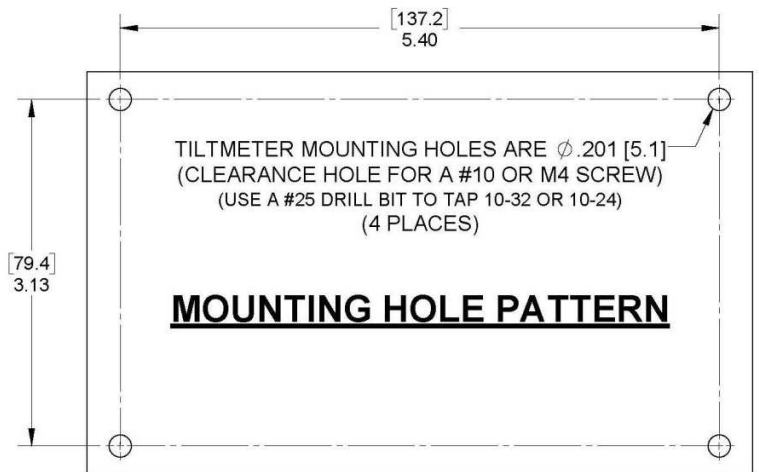
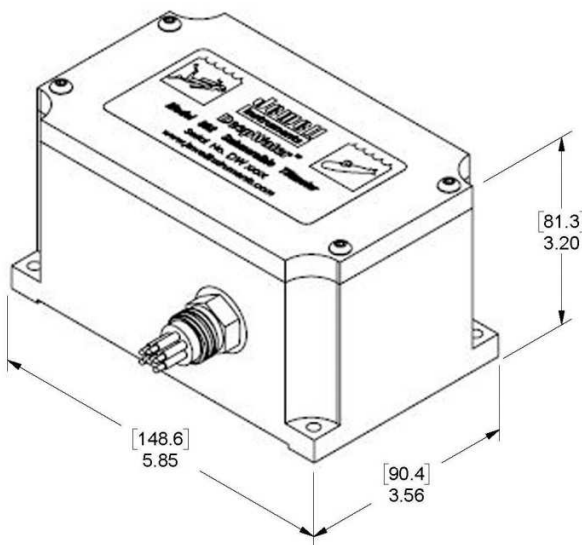
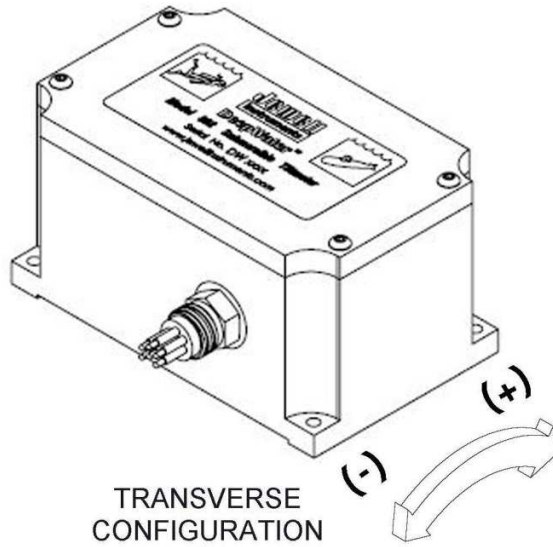
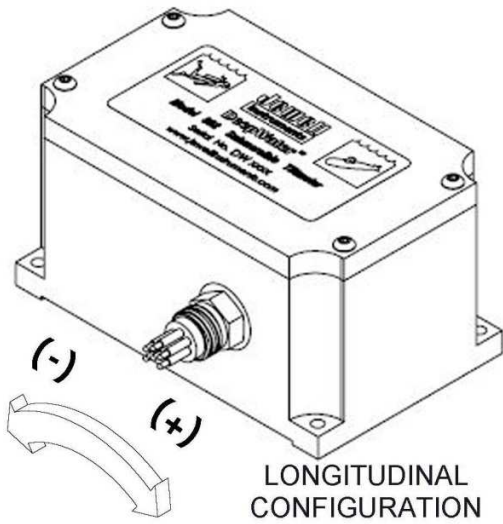
	High-Gain	Standard	Wide-Angle
Angular Range	±0.5°	±3.0°	±50°
Resolution	<0.0001°	0.0006°	0.01°
Repeatability	<0.0002°	0.001°	0.02°
Non-Linearity	1%	2%	0.5%
Scale Factor	0.0625°/mA	0.375°/mA	6.25°/mA
Kz Temp Coefficient (deg/C)	±0.0002°/°C (typical)		±0.002°/°C (typical)
Ks Temp Coefficient (%/°C)	<0.04%/°C (typical)		<0.1%/°C (typical)
Time Constant	0.15 sec		
Output	4-20mA Two-wire current loop (per axis)		
Channels	Tilt, Temperature		
Output Impedance	270 ohms		
Temperature Output	0.1°C/mV typical (single ended; 0°C = 0mV)		
Power	(0.02 Ampere x R + 10 VDC) < Vs < 29 VDC		
Environmental	-4 to +60°C operation; -40 to +85°C storage. IP68		
Dimensions	120 x 80 x 60 mm, 5 kg (11 lb.)		
Materials	316 SS (6AL-4V Titanium also available)		
Cable	6-conductors, Neoprene, 20 AWG, no shield		

Specifications subject to change without notice on account of continued product development

Ordering Code:



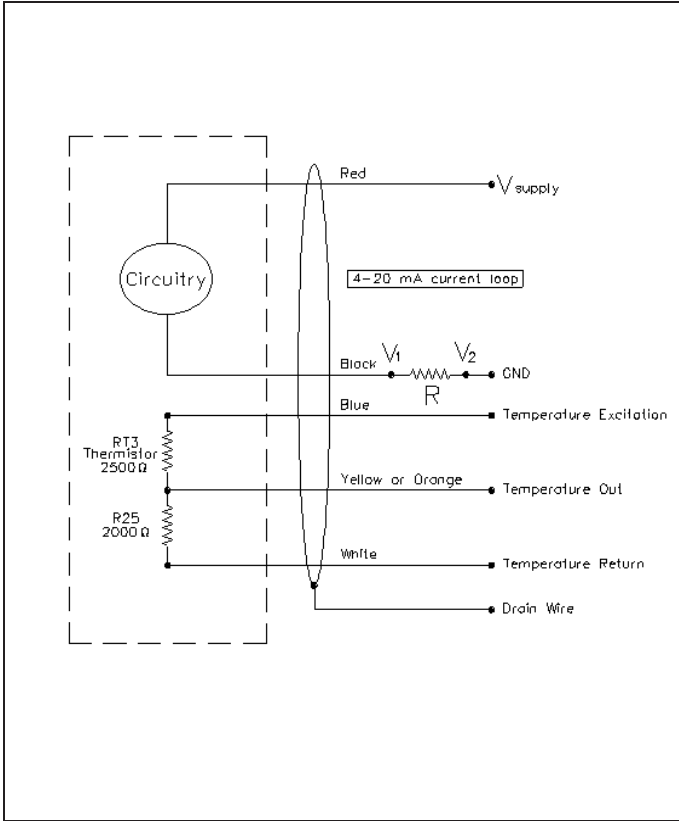
Dimensions & Axis Configurations:



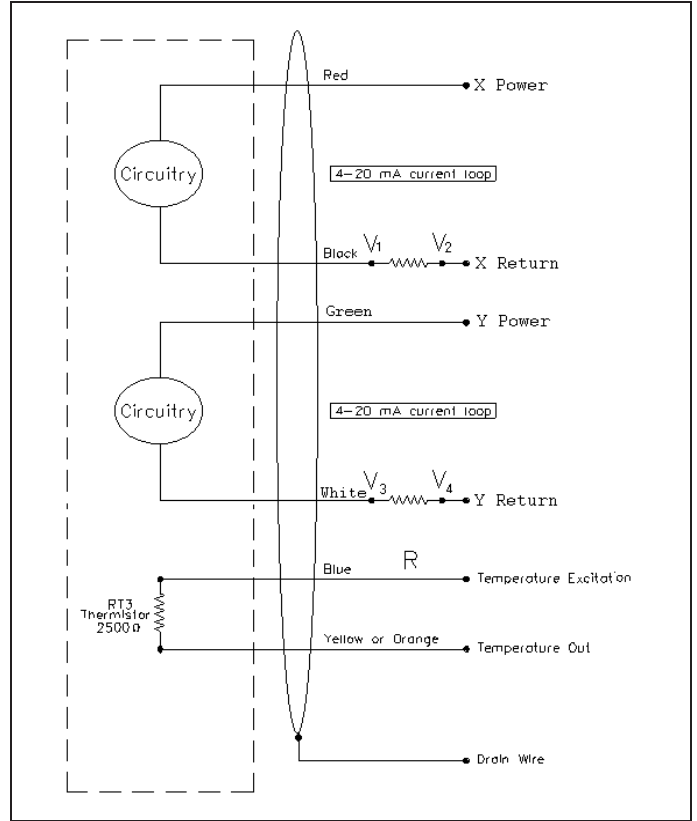
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Circuit Diagram:

Model C802 (Uniaxial Versions)



Model C802 (Biaxial Versions)

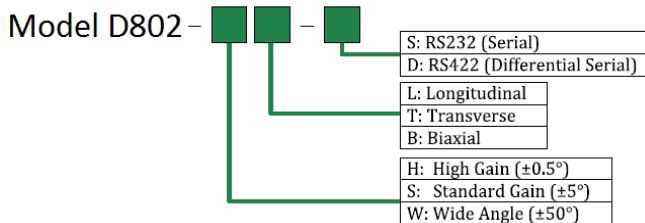


The model D802 Deepwater is a high-precision submersible tiltmeter for use in marine, offshore, and deep ocean applications. Using an absolute gravity referenced electrolytic sensor, the D802 delivers superior measurement accuracy with virtually no long-term drift. High-gain units are sensitive to <0.0017 mm/m or better. Output is RS232 or RS422. All units are rated to +2500m waterproof for advanced protection from the elements. Use the D802 "Deepwater" for structural monitoring, angle measurement and control, platform leveling, and more.



	DeepWater Digital (Standard)	DeepWater Digital (Wide Angle)
Angular Range	±5°	±60°
Resolution	0.002 degrees	0.02 degree
Repeatability	0.002 degree	0.02 degree
Temperature Coef.	0.001 degree/°C typical	0.01 degree/°C typical
Channels	X-tilt, Y-tilt, Temperature	
Non-Linearity	0.1% of full span or better	
Time Constant	0.15 second	
Output	RS232 or RS485	
Baud Rate	9600 (default), 19200, 28800, 57600, 115200, 230400	
Output Format	NMEA XDR, Trimble TCM, Ashtec compatible, Simple (default: X, Y, Temp., S/N)	
Power	7 to 25 VDC @ 27 mA, 250 mV peak-to-peak ripple maximum, reverse polarity protected	
Environmental	-4° to +60°C operational, -30° to +100°C storage. 3500 psi (~250 bars)	
Mounting	Four no. 10 stainless steel mounting screws.	
Materials	316 stainless steel	
Connector	6-pin neoprene, wet-mateable	
Size & Weight	152 x 102 x 89 mm (6 x 4 x 3.5 inches), 5 kg (11 lb)	

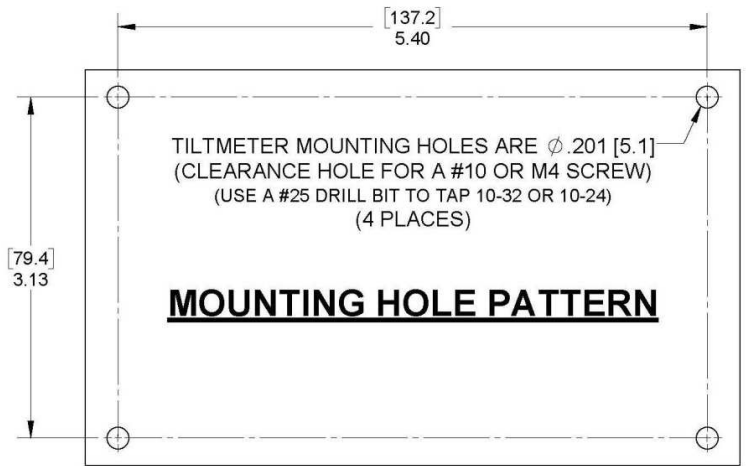
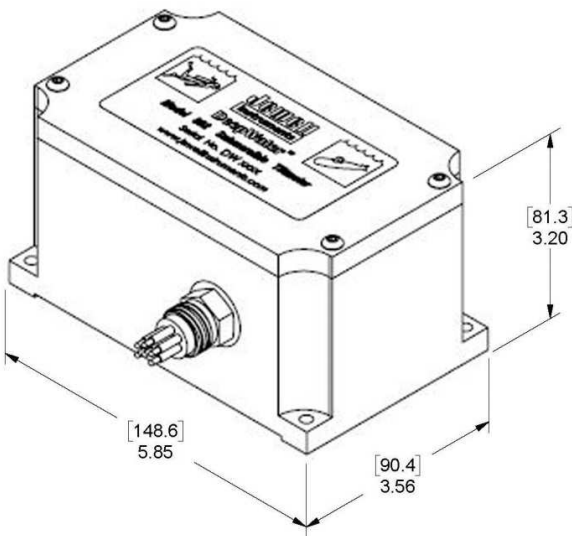
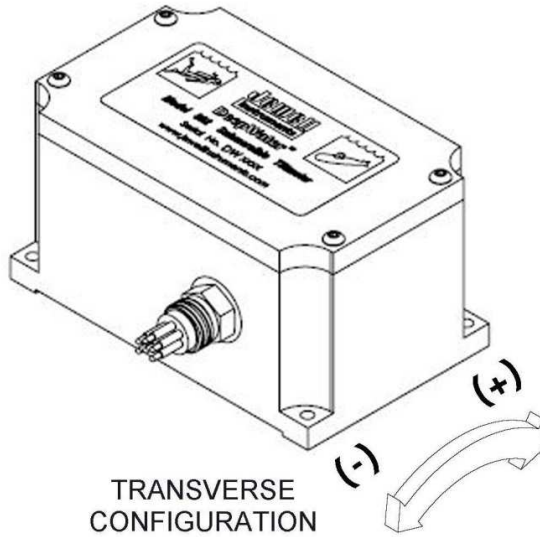
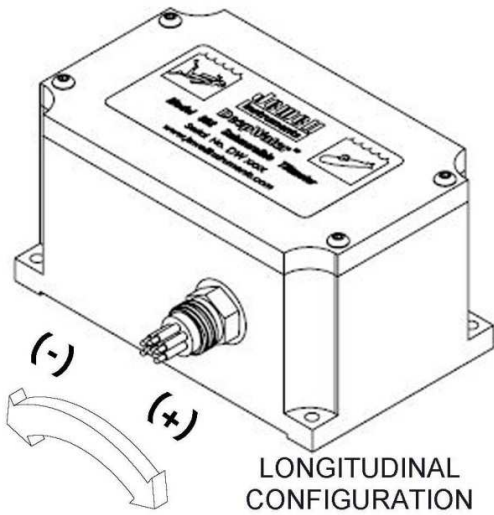
Ordering Code:



Wiring/Pin-out:

Pin	Wire Color	Function	RS485 Function
1	Black	Ground	Ground
2	White	Not used	TX-
3	Red	Power	Power
4	Green	RX	TX+
5	Yellow (Orange)	Not Used	RX-
6	Blue	TX	RX+

Dimensions & Axis Configurations:



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